

335181

7105



PARK CITY LANDFILL EVALUATION

RELOCATION OF US-HIGHWAY 40

PARK CITY TO SOUTH MAYFLOWER

March 1988

WASATCH GEOTECHNICAL

Engineering and Technical Services

March 29, 1988 112-1

Utah Department of Transportation Materials and Research Section 4501 South 2700 West Salt Lake City, Utah 84119

Attention: Mr. Ed Keane

Re: Park City Landfill Evaluation Relocation of US-Highway 40 Park City to South Mayflower

Gentlemen:

In accordance with your request we have drilled and sampled 11 borings at the Park City Sanitary Landfill. The accompanying boring logs present our interpretation of the materials encountered in the borings.

GEOTECHNICAL ENGINEERING

ENVIRONMENTAL GEOTECHNOLOGY

UNDERGROUND TANK COMPLIANCE

It is our understanding, based on discussions with Mr. Ed Osika of United Park City Mines Company, that the site was leased as both a gravel pit operation as well as a sanitary landfill. The operations were concurrent in that after an area of gravel was mined, the area was then used for solid waste disposal.

This history may help explain apparent anomalies encountered in Borings 7, 8, and 10. In these borings we could not verify that original ground had been encountered; the samples did not indicate any bedding, layering, or stratification that would be indicative of alluvial deposition and very little "landfill" like materials were encountered in these borings. The deeper samples (below 45 to 50 feet) could possibly be interpreted as colluvium, however, the gravelly and rocky materials resulted in sample disturbance which made interpretation difficult.

A study of old topographic maps or records of the gravel pit and landfill operations may help resolve the issue if deemed necessary.

Please call if you have questions.

Sincerely,

WASATCH GEOTECHNICAL

Les Pennington, P.E.

Copies: Addressee (6)

FIELD INVESTIGATION

The field investigation consisted of a surface reconnaissance and a subsurface exploration program using a CME 75 continuous flight auger drill rig. Eleven exploratory borings were drilled between March 2 and March 9, 1988 at the approximate locations shown on the Site Plan, Figure 1. The materials encountered in the borings were continuously logged in the field by our representative and described in accordance with the Unified Soil Classification System (ASTM D 2487).

Representative samples were obtained from the exploratory borings at selected depths appropriate to the investigation. Penetration resistance blow counts were obtained by driving a 2-inch 0.D. split spoon sampler or a 2.5-inch 0.D. split spoon sampler with a 140-pound hammer dropping through a 30-inch free fall. The sampler was driven a maximum of 18 inches and the number of blows recorded for each 6-inch interval. The blows per foot recorded on the boring logs represent the accumulated number of blows that were required to drive the last 12 inches or portion thereof. Boring log notation for the standard split spoon sampler as well as for the 2.5-inch California sampler are indicated below.

	Standard Split Spoon Sampler		California Sam	pler
-		1 1		

DATE DRILLED 3/03/88				 	1	T	1			_
LOGGED BY LHP								2	(KSF)	OH Z
SURFACE ELEVATION DRILL RIG CME 75					<u> </u>	F	7 %	DRY DENSITY (PCF)		HI
BORING DIAMETER 5-1/2"				DEPTH (FEET	SAMPLER		WATER	Ä.P.	SHEAR	FOR
DEPTH TO GROUNDWATER Not Estab		TON		ĎĒ.	돛	BLOWS	A T	> ਦ	SHEAR STRENGTH	PRONT PRINT TANA
DESCRIPTION AND CLA		T	COTI	I	01	1 2	ات - ا	Ä	<u> </u>	수한번
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						S	S
LANDFILL - SOIL MATRIX			SC	L _	}					
CONSISTS PRIMARILY OF				_						
CLAYEY SAND WITH GRAVEL				- 2	∇	56				
						1				
				- 4 -						
				- 6						
(tree parts, some soil)				8	\times	20				
						1				
				10						
				_						
				12	$\overline{\nabla}$	10				
(plastic, decomposed wood, mostly soil)					\triangle	16				
				14						
				16						
/				18	X	16				
(decomposed wood, poor recovery, vapor and odor from boring)					\sim					
odor from boring)				20						
				22	$\overline{}$	14				
(mostly soil, some decom- posed material and					\triangle	7-4				J
metal)				24						
				26						
										1
				28						j
(mostly soil)					\geq	15				I
SILTY CLAY (original	reddish brown	firm	CH	30						
ground)				- 32						
				- 32						l
				34	X	7				
BOTTOM OF BORING 34-1/2'										==
BOLLOW OF BOKING 34-1/5				36						
								l		1
NOTE: THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDRY										
BETWEEN MATERIAL TYPES! THE TRANS- ITION MAY BE GRADUAL.					l					
	EXF	PLOR!	AT	ORY	B	OR	IN	G	LO	a I
TAT				ION OF					-	
WASATCH	P	ARK CITY							JER	
GEOTECHNICAL		TECT NO.		DATE			BORING			
	11	2-1		March 1	988		NO.	1		

DATE DRILLE	D 3/04/88				T	T	T	_			T =
LOGGED BY	LHP				_			1	>	110	OM I
SURFACE ELE	VATION]	1 02		8	1 1	(KSF	高당
DRILL RIG	CME 75				┧ ┰╒	SAMPLER			(PCF)	ابدا	i iii lo
	ETER 5-1/2" ROUNDWATER Not Estab	olished			- EB	Ē	i		물	SHEAR	SW.
	DESCRIPTION AND CLA		TON		DEPTH (FEET)	R.	BLOWS	WATER	DRY C	ᅜᆲ	NO. Z
		7	T	Tenti			ᆸ	١	Ď	SHEAR	COMPRES STRENGTH
DESURIE	PTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE	<u></u> '		<u></u>			U V	<u>ν</u>
LANDFIL	L - SOIL MATRIX			SC	Γ I		_	TI		['	
1	S PRIMARILY OF		ļ			,		1 1	i	1 '	
ł					- 2	K/	┤		1	'	
CLAYEY	SAND WITH GRAVEL			1	⊢ →	乙	13		į	1	1
					- 4	· '			! !	1	1
		-		1	├			1		1 1	1
				!	L- 6	1					1
İ			•	'		لربا	4	1	. !	1	1
(soil a	nd gravel)		'	'	8	X	45			1	İ
\	ille graven,		'	'	[1		1	1 1	ŀ
		-	!	1	10		1	1	1	1	t
			1				1			1 1	1
			1	1	12		l	1	1	1 1	i
(enil a	nd gravel)		1	1		X	31	1	1	1 1	l
(30	UR ALEASTY		1		Γ.,]	\sim			1	1 1	l
			1		14		1		1	1 1	ĺ
	······································			24	├ -		1	1	1	1 1	1 -
	ND (original	reddish brown	medium dense	SM	16	. !		1	1	1 1	ĺ
ground)					F +		I '		,	1 1	i
j		}	1		18	X	28	1	1	1 1	i
	ĺ		1		F 4		į į	1	1	1	ı
		İ '	1	1	20	. }	į !	1	}	1	i
	ĺ		1		⊢ ⊢	i	1	1	1	1 1	i
			1	1 1	22	$ \langle $		1	1	1	i
(gravel a	and cobbles)		l'		├ ┥	\angle	ı!	1		1	I
	F BORING 23-1/2'				24						
DU11			1	1]	- -	. }	į 1	1)	1 1	ı
		<u> </u>	1	1 1	 	.	<i>i</i> !		1	.	ı
		!	1	1 1	+ -	.]	1	1		, ,	i
		!	1	1 1		ı]	1 1		1	, 1	i
		j	1 1	1 1	⊢ →			1 1	1	ı	I
		ļ '	1	1 1			ı J	1		, 1	i
		!	1	1 1	⊢ –		, !		1	<i>i</i>]	i
		•	1	1 1	<u> </u>	.	. !		1	.	I
		d 1	1 1	1 1	/	.	, !	1 [1	.	i
			1	1		.]	, !			,]	i
			1	1 1	+ +	.	, 1	1	1	.]	i
		!	1	1 }	 	.	, !		1	,	j
			1 1	}	+ +	.	, 1	1	1	i l	i
	STRATIFICATION LINES		1 1	1 }	 		, 1		I		i
REPRESENT TH	HE APPROXIMATE BOUNDRY ERIAL TYPES! THE TRANS-		1					,		. 1	i
ITION MAY BE			l		<u></u>						
		EXF	PLOR	AT	ORY	B	OR	IN	G	LO	G
	TAT				ION OF U						
	Wasatch	P	ARK CITY							JER	
	GEOTECHNICAL		JECT NO.	-	DATE						
	CRECIECIMICAL		12-1	1	March 1	988	7	BORING NO.	2		
1					,, — <u> </u>						

DATE DOLLED COMO COO				,	,	,	·			,
DATE DRILLED 3/02/88 LOGGED BY LHP		· · · · · · · · · · · · · · · · · · ·		}		İ		_	1	
SURFACE ELEVATION						<u> </u>	×	ΙΤΥ	(KSF	
DRILL RIG CME 75				-:	I H	L	~ =	Ş.		NIS.
BORING DIAMETER 5-1/2" DEPTH TO GROUNDWATER Not. Estat	.1:			DEPTH (FEET	SAMPLER	10	WATER CONTENT	DRY DENSI	SHEAR STRENGTH	UNCONFINED COMPRESSIVE STRENGTH (KSF
DEPTH TO GROUNDWATER Not Estate DESCRIPTION AND CL	lished	TON		Ä.	Ĕ	BLOWS	4 2	→ #	13.8	365
	1		COTI	1	٠.	<u> </u>	- 5	<u> </u>		
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						່ທ	ັ່ທ
LANDFILL - SOIL MATRIX			CL							
CONSISTS PRIMARILY OF										
				- 2	7	4-				
SANDY CLAY WITH GRAVEL					\triangle	45			,	
AND COBBLES	1			- 4 -						
	İ									
				6						
					$\overline{}$					
(gravel)				8	X	33				
				10						
				12						
					X	15				
				14						
				16		1				
(decaying wood, fibrous				18	\times	9				
(decaying wood, fibrous plastic, strong odor from boring-tests indi-										
cate hydrogen sulfide and combustibles)				20						
and combustibles)]							
				22						
	İ			- +	$\langle \cdot \rangle$	4.0				
(decomposed wood, plastic and unidentified black	•			24	\triangle	12				
substance, mostly soil)										
				26						
			1							
				28	abla abl	18	}			
(plastic, paper, tile, mostly clayey gravel)					\triangle					
mostly clayey gravel)				30						
				- 32						
(mostly clayey gravel)										
(MOSCIA CITAGEA ALGOST)				34	X	7				
SILTY CLAY (original	buff	stiff	СН		\hookrightarrow	i				
ground)				36						
				_						
BOTTOM OF BORING 40' Note: The stratification lines				38						
REPRESENT THE APPROXIMATE BOUNDRY BETWEEN MATERIAL TYPES; THE TRANS-					∇	13				
ITION MAY BE GRADUAL.			<u> </u>	40	\cong					
	EX	PLOR:	AT	ORY	_8	OR	IN	G	LO	G
WASATCH				ON OF L						
	P	ARK CITY	י שע	NCT ION	TO :	SOUTI	H MA	YFLO	JER	
GEOTECHNICAL	PR0	JECT NO.		DATE			BORING	· _		
	1 11	l2-1	1 1	March 1	988	- 1	NO.	Э		

DATE DRILLED 3/03/88		· · · · · · · · · · · · · · · · · · ·		1		1				
LOGGED BY LHP		· · · · · · · · · · · · · · · · · · ·				.•		2	(KSF	o with
SURFACE ELEVATION DRILL RIG CME 75					8	[א ב	.IST		SISE
BORING DIAMETER 5-1/2" DEPTH TO GROUNDWATER Not Estab	7:			DEPTH (FEET)	SAMPLER	10	WATER	면 한	SHEAR	CONF PRES NGTH
DESCRIPTION AND CLA		ION		<u> </u>	₹	BLOWS	WATER CONTENT	DRY DENSITY (PCF)	IS N	UNCONF COMPRES TRENGTH
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE			面		፟	SHEAR STRENGTH	NO ST
LANDFILL - SOIL MATRIX			SC.							
CONSISTS PRIMARILY OF			761							
CLAYEY SAND AND SANDY CLAY				2	X	72				
WITH GRAVEL AND COBBLES		ĺ		4						
(mostly gravel and soil, some metal and paper)				- 6 - 6 - 8 - 10	X	46				
(mostly soil, some metal fragments, decomposed wood and plastic)				12 14 	X	16				
(mostly garbage, rubber, plastic and paper)				16 18 20	X	26				
(mostly soil and gravel, rubber, plastic, wire)				22 24 26	X	49				
(mostly soil and rock)				- 28 - - 28 - - 30	X	44				
(mostly soil and rock, some wire)	:			32 - 34	X	41				!
SILTY CLAY (original	buff	stiff	СН	- 36					:	
Pround) BOTTOM OF BORING 40' Note: The stratification lines represent the approximate Boundry Between material types; the trans- ition may be gradual.				- 38 - 38 - 40	X	15				
	EX	PLOR:	AT	ORY	8	OR	IN	G	LO	G
WASATCH	p	RELO		ON OF L					JER	
GEOTECHNICAL	PRO:	TECT NO.	1	DATE			BORING			
	[11	L2-1	1	March 1	988	- [NO.	4		

DATE DRILLED 3/04/8	18			 -	1			T			_
LOGGED BY LHP SURFACE ELEVATION					1		Ŀ	×	2	(KSF	당하실
DRILL RIG CME 75					75	Ä	iL L	1	SE.	بدا	SIVED
BORING DIAMETER 5-1/2" DEPTH TO GROUNDWATER Not Es	tablishe	<u> </u>			DEPTH (FEET)	SAMPLER	S	WATER	골	SHEAR	CONF
DESCRIPTION AND			ION		요.	₹	BLOWS	WATER CONTENT	DRY DENSITY (PCF)	SHEAR	
DESCRIPTION AND REMARKS	COLO	R	CONSIST.	SOIL TYPE			<u></u>		۵	STR	NO STA
LANDFILL - SOIL MATRIX		-		SC							
CONSISTED PRIMARILY OF					2						
CLAYEY SAND AND GRAVEL						X	30				
					- 4						
		İ				ł					
1					6				,		
(mintum of soil and						V	10				
(mixture of soil and unidentified decompose material, plywood)	ed	l			8						
Macerial, plywood)					10						
		İ									
		İ			12	X	37				
(mixture of soil and decomposed material)					14						
							J				
(very hard drilling at 15')					16						
						∇	64				
GRAVEL AND ROCK	gray		very dense		18 -	\triangle	U-T				
		- 1			20		596				J
(no recovery)											
DRILLING REFUSAL 21'		İ			22						
				}							i
				İ							
		İ									
1]	;	}			!				
				Ì							
		-		}							
				}							
				ľ							
ĺ					_						!
Note: The stratification lines				 							
REPRESENT THE APPROXIMATE BOUNDR' BETWEEN MATERIAL TYPES; THE TRAN				t	<u> </u>						
ITION MAY BE GRADUAL.	F	 }<	LOR	<u> </u>	ORY		OR	IN	G	LO	G
WASATCH					ON OF L						
			RK CITY		NCTION					JER	
GEOTECHNIC	AL		ECT NO.		DATE	000	_	BORING	5		
		11	2-1		tarch 1	788		NO.	J		

						7					·
LOGGED BY	D 3/02/88 LHP		 	·· <u> </u>	ł				>	Œ	<u>.</u>
SURFACE ELE	VATION]	œ	E	×	51TV	IKSF	ਰਜ਼ਨ ਜੁਜ਼ਨ
DRILL RIG BORING DIAM	CME 75 ETER 5-1/2"				ΞĤ	Ë	\	8 2	SEC.	卷王	FSE
DEPTH TO GR	DUNDWATER Not Estat	lished			DEPTH (FEET)	SAMPLER	S ₂	WATER CONTENT	7 P	SHEAR	UNCONF COMPRES STRENGTH
D	ESCRIPTION AND CLA	SSIFICAT	T	Teas	1	Ŋ	BLOUS	3 8	DRY DENSI	SHEAR STRENGTH	SEE
DESCRIP	TION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						15	515
LANDFILL	- SOIL MATRIX			SC							
CONSISTS	PRIMARILY OF				2						
CLAYEY S	PND						6	}	·		
(plastic,	cardboard)				- 4						
					6						
							26				
(gravel,	vire)		j		8		20				
			·		10						
					- 10 -						
					-12 -		40				
(sandy c)	lay matrix, cloth)						18				
					14						
SANDY CLA	Y WITH GRAVEL	reddish	stiff	CL							
1	INTERBEDDED	brown	30111		16						
	+				18		12				
SILTY SAN	lU										
					20						
]											
		i			22						
					24		25				
										=	
BUTTOM OF	BORING 24-1/2'				26						
ŀ											
•											
						1					
1											
											·
	TRATIFICATION LINES E APPROXIMATE BOUNDRY										
BETWEEN MATE	RIAL TYPES; THE TRANS-										
		EXF	>LOR	AT	ORY	B	OR	IN	G	LO	G
	Wasatch		RELO	CATI	ON OF L	JS-H	IGHW	AY 4	0		
			ARK CITY	الال		TO :	SOUTI	H MA	YFLO	JER	
	GEOTECHNICAL		JECT NO.	+-	DATE March 1	000		BORING NO.	6		
		, 44		, ,	HOLI VIII L	700	- 1	14.6.	_		

DATE DRILLED 3/04/88				T			 		Τ =	
LOGGED BY LHP				1			×	≥	(KSF)	Simp
SURFACE ELEVATION DRILL RIG CME 75					8	l L		DRY DENSITY (PCF)	1	띪갻
BORING DIAMETER 5-1/2"				ĔÜ	1	1		Ę,	F.E.	REST
DEPTH TO GROUNDWATER Not Esta DESCRIPTION AND CL	blished ACCITICAT	TON		DEPTH (FEET	SAMPLER	BLOWS	WATER	÷.	SHEAR	ACON PRE
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE	1		9	0	2	SHEAR STRENGTH	
LANDFILL - SOIL MATRIX			CL							
CONSISTS PRIMARILY OF				Γ -		İ				
SANDY CLAY AND GRAVEL	:			2	V	30				
(roofing, wood, poor recovery)				- 4	<u> </u>					
(no recovery)				- 6 - - 8 - - 10 -	X	5				
(decomposed wood)				12 14	X	7				·
(decomposed wood, card- board, plastic, some soil and gravel)				16 18 20	X	26				
				22 24 26	X	34				
(mostly soil)				 28 30	X	14				
(cloth, wood fragments, mostly soil)				32 34	X	19				
(wood, cloth, mostly soil)				36						
(continued) Note: The stratification lines REPRESENT THE APPROXIMATE BOUNDRY BETWEEN MATERIAL TYPES; THE TRANS- ITION MAY BE GRADUAL.				- 38 - 38 40	\times	20				
	FX	PLOR	—— ♣T		 FR	OP	IN	ß	<u></u>	G
WASATCH			CATI	ON OF L	JS-+	IIGHL	AY 4	0		
GEOTECHNICAL	PRO	JECT NO.	7	DATE						
GEOIECHIVICAL		12-1		March 1	988		BORING No.	7(P9. 1)
										

1 5000 Sec. 100				,	,	,	,			
DATE DRILLED 3/08/88 LOGGED BY LHP				-		1				
SURFACE ELEVATION						<u> </u>	18	≥	(KSF	당유진
DRILL RIG CME 75				1	L CK	L	~ E		ت ا	INED SSIVE
BORING DIAMETER 5-1/2"				F.E.	길	1			はこ	두었는
DEPTH TO GROUNDWATER Not Estate DESCRIPTION AND CL		TON		DEPTH (FEET)	SAMPLER	BLOWS	WATER	79	12.2	UNCONF COMPRES RENGTI
	T	1	COT	i	"	H	_ 2	DRY DENSI	SHEAR STRENGTH	UNCONFINED COMPRESSIVE STRENGTH (KSI
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						N S	7 is
LANDFILL			CL			_				
			ļ '	_		1				
(mostly silty clay, cloth,			l	42	l					
discolored soil, cobbles in tip)				-	\	100				
	 	 		44	Δ	100/				
GRAVEL AND COBBLES (see	varied	very								
note)		dense		46						
		į		-						
		1] !	48						
					∇	46				
				50						
BOTTOM OF BORING 50'										
	}									
	1									
NOTE: Due to sample dis-										
turbance and rocky nature	ļ	į.								,
verify original ground.										
turbance and rocky nature of material, unable to verify original ground. Unable to sample deeper, rig equipped with only 50 feet of sampling rod.				_						
feet of sampling rod.										'
		ł								
	j	ļ								
				_						
										!
		J								
ì		ł								
1										
Note: The stratification Lines										
REPRESENT THE APPROXIMATE BOUNDRY					į					
BETWEEN MATERIAL TYPES; THE TRANS- ITION MAY BE GRADUAL,										
	EX	PLOR	AT	ORY	B	OR	IN	G	LO	G
TAT		RELO	CAT	ION OF	US-I	HIGHL	JAY 4	40		
WASATCH	Pi	ARK CITY							ER	
GEOTECHNICAL	PRO	JECT NO.	I	DATE			ORIN			
		12-2	1	larch 1	988		NO.		g.2)	

PATE ADVILLED D. 430 400				,		, 	_		,	,
DATE DRILLED 3/08/88 LOGGED BY LHP						١.		ъ-	L.	7146
SURFACE ELEVATION]	OZ.	L	8	SIT	(KSF	INED
DRILL RIG CME 75 BORING DIAMETER 5-1/2"				ΞĒ		\	8 Z		سا	FISH
DEPTH TO GROUNDWATER Not Estab	lished			DEPTH (FEET	SAMPLER	ស្មី	WATER	20	SHEAR	QK =
DESCRIPTION AND CLAS	SIFICAT	ION		1	ហ៊	BLOWS	3 8	DRY DENSITY (PCF)	SHEAF STRENGTH	꽃을
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE			Œ		<u></u>	ST	COMPRESS COMPRESS STRENGTH
LANDFILL - SOIL MATRIX			SC	L _						
CONSISTS PRIMARILY OF				_						
CLAYEY SAND				2	∇	13				
(gravel and rock, some soil)				8	X	40				
soil)										
				10						
							1			
				12	$\overline{}$	72				
(soil and rock)		,			\triangle	/ -				
				14						
1				16						
(1: -ile: -le:				18	X	10				
(mostly silty clay, some gravel and rock)					\sim					
				20						
] }							
				22						
				1	∇	20			1	
				24	\sim					
				26						
			{						ŀ	
(soil and rock)			ŀ	28	\boxtimes	20				
-				1						
				30						1
				_ 32 _	إ				J	j
(silty clay)					\boxtimes	15				
				34						
			ŀ						l	
				36					ļ	
(continued) Note: The stratification Lines			l	38	∇	14				1
REPRESENT THE APPROXIMATE BOUNDRY					4			ļ		
BETWEEN MATERIAL TYPES; THE TRANS- ITION MAY BE GRADUAL.			}	40						
	EXF	LOR(AT	ORY	B	OR	IN	G	LO	G
WASATCH				ON OF L						
		ARK CITY	JUI		10 :	SOUTI	HAY	rFLOW	IER	{
GEOTECHNICAL		JECT NO.	+-:	DATE March 1	000	I	BORING NO.	8(e	g. 1)	, 1
		· _ · · ·		Idi CII L	700		17.0	~ \ r	/	

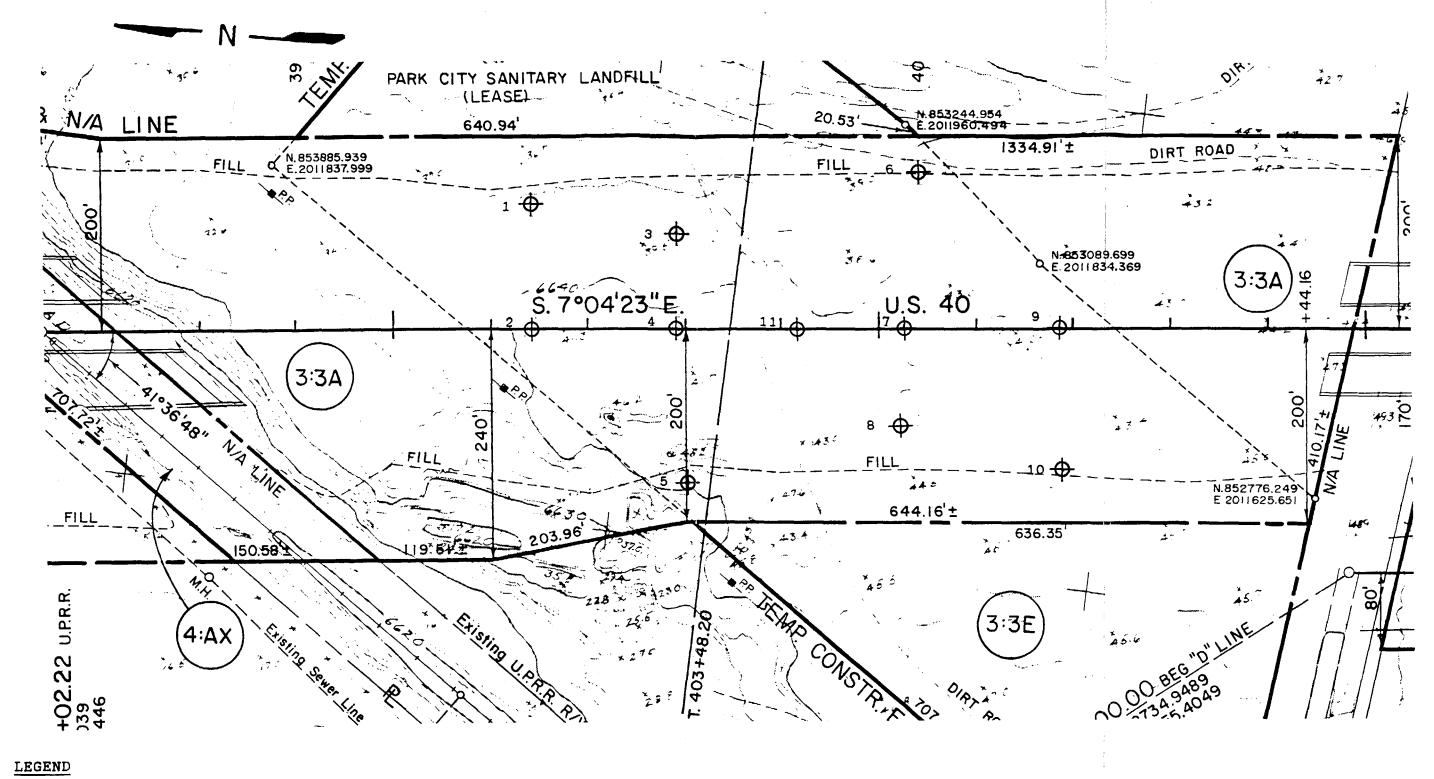
DATE DRILLE	3/08/88										
LOGGED BY	LHP								> -	(KSF	UNCONFINED COMPRESSIVE STRENGTH (KSF
SURFACE ELEV DRILL RIG					_	ıκ	1	*	TI TI	¥	[출발동
BORING DIAM	CME 75 ETER 5-1/2"				Ξ£	SAMPLER	\	γŽ	₹:	¥π	든었고
DEPTH TO GR	OUNDWATER Not Estab	lished			DEPTH (FEET)	F	N	UATER ONTEN	문항	4E	2 % P
	ESCRIPTION AND CLA		ION	-	5 5	ι γ.	BLOWS	UATER CONTENT	ک تا	な芸	중독대
DESCRIP	TION AND REMARKS	COLOR	CONSIST.	SOIL	1		一面	٦	DRY DENSI	SHEAR STRENGTH	고있뜭
DESCRIP	TON HAD REPHANS	CULUK	CONSTST.	SOIL TYPE		ļ				8	VI
LANDFILL				CL	Ĺ						
					「 「						
1			[42	K 7	{				
(silty c	lay and rock, does		l			Δ	57				,
ground)	lay and rock,does ear to be original			}	44						
			į		46						
!	i										
			l		40						
					48	\ 					
(silty c	lay and rock)				_	\times	49				
					50	\longrightarrow					
BOTTOM OF	F BORING 50'				-						
	1	!									
NOTE: Due	e to sample dis-										
turbance	and rocky nature										
verify of	riginal ground.										
Unable to	p sample deeper,										
feet of	and rocky nature ial, unable to right ial, unable to right ial ground. In sample deeper, ped with only 50 sampling rod.										
1											
)	j										
ļ											
ŀ			}								
	1				- 1						
	1							ļ			
					-						
	į.	į									
1	'										
ł											
					├ -						
										, [
ļ]]							
Note: Tue :	STRATIFICATION LINES										
REPRESENT TH	E APPROXIMATE BOUNDRY				<u> </u>						
BETWEEN MATE	RIAL TYPES; THE TRANS-										
		FX	LOR	AT	UBA	P	OR	IN	G	LO	G
	TAZ				ION OF						
	Wasatch	Pf	RK CITY							ER	
	GEOTECHNICAL		TECT NO.	1	DATE						
ركا			12-2	1	tarch 19	788	_	BORING NO.	8(P	9.2)	

DATE DRILLED 3/02/88				T T	T		1			, ,
LOGGED BY LHP				į			7	<u>}</u>	(KSF	أسم
SURFACE ELEVATION DRILL RIG CME 75					2	[1	DRY DENSITY (PCF)	1	INED
BORING DIAMETER 5-1/2"				ΞΉ	7		유립	μ̈́ρ	쯢표	
DEPTH TO GROUNDWATER NOT Estab DESCRIPTION AND CLA	lished	TON		DEPTH (FEET	SAMPLER	BLOWS	WATER CONTENT	> 0	SHEAR STRENGTH	[일요]
		,	Soti	ł	"	BL(5	쫎	2	Sò
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL						is	l l
LANDFILL - SOIL MATRIX			sc	-	-					
CONSISTS OF CLAYEY SAND				2	-					
WITH GRAVEL AND ROCK					ł					
(to rocky to sample upper 7 feet)				- 4						
				- 6		60				
(roots and tree fibers)				8 		23				
				10 12						
(gravel and rock)				14	X	75				
				 16						٠
			-01	18	X	10		!		
SANDY CLAY (original	reddish brown	very stiff	CL-	20						
ground)				20 -						
				22						
				-	X	17				
BOTTOM OF BORING 24'				24						
BOTTON OF BOKING 24										
			1 1							
				- -]]			
			[
			 							
) <u>[</u>							
			[
Note: The stratification lines represent the approximate boundry between material types; the trans-	:									
ITION MAY BE GRADUAL.			느ᆜ				IN			_
	E-341	PLOR!		ON OF					LO	
707	1									
WASATCH	Pı								JER	
WASATCH GEOTECHNICAL		RELUIARK CITY				SOUT		rFLO	JER	

DATE DRILLED 3/08/88										-
LOGGED BY LHP SURFACE ELEVATION						<u>.</u>		<u>}</u>	IKSF	명유 <u>주</u>
DRILL RIG CME 75	ıΞ	H. H.	1	αĘ	Š.C	۱.,	FIN TSI			
BORING DIAMETER 5-1/2" DEPTH TO GROUNDWATER Not Estat		DEPTH (FEET)	SAMPLER	1	WATER CONTENT	젊단	SHEAR	PRES THE		
DESCRIPTION AND CL	25	ιχ	BLOWS	3 5	DRY DENSITY (PCF)	SHEAR STRENGTH	COMP			
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL			æ			STI	STI
LANDFILL - SOIL MATRIX			CH-	_						
CONSISTS PRIMARILY OF			LII	2						
SILTY CLAY AND GRAVEL					X	25				
(wood, black sandy soil)				- 4						
				6						
(4				ר ב ו	\bigvee	16				
(decomposed materials, some soil and gravel)				8				:		
				10				:		
1										
4-134-134-134-134-134-134-134-134-134-13				12	$\overline{\nabla}$					
(silty clay, gravel, and rock)				14	\triangle	25				
				Tet						
				16						
(=:14., =1 ===										
(silty clay, gravel, and rock)				18	\triangle	15				
				20						
		<u> </u> 								
				22						
(=:1e., =1e., ====1					\boxtimes	12				
(silty clay, gravel, and rock)				24						
				26						
(silty clay, gravel, and rock)				28	\boxtimes	12				
POCK)				- 30						
				36						
				32		-				
(silty clay, gravel, and rook)					Δ	15				
rock)				34						
				36						
(continued)						07				
NOTE: THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDRY				38	\triangle	27				
BETWEEN MATERIAL TYPES! THE TRANS- ITION MAY BE GRADUAL.				40						
	EX	EXPLORATORY BORING LOG								
WASATCH	_	RELOCATION OF US-HIGHWAY 40								
GEOTECHNICAL		NCTION TO SOUTH MAYFLOWER								
GEOTECHNICAL		JECT NO		DATE March 1	BORING					
		_	ــــــــــــــــــــــــــــــــــــــ							لــــــــــــــــــــــــــــــــــــــ

DATE DRILLED 3/09/88										
LOGGED BY LHP						.		>	(KSF)	ДШ .
SURFACE ELEVATION DRILL RIG CME 75			2	E	×	PENSITY (PCF)	¥	ES:		
BORING DIAMETER 5-1/2"		DEPTH (FEET)	SAMPLER		UATER CONTENT	<u> </u>	SHEAR	FIST F		
DEPTH TO GROUNDWATER Not Establ			Œ.	BLOWS	WATER	20	SHEAR	UNCONFI COMPRESS STRFNGTH		
DESCRIPTION AND CLAS	COTI		ŲΊ	H	2 2	PR C	, M	多点を		
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOF					<u> </u>	15	, v
LANDFILL			다	_						
			Gn	42					1	
				72						
(nail and other metal fra-				44	\times	47				
ments, mostly soil and										
gravel)				46						
İ										
				48						
(silty clay, gravel, and rock)					X	44				
				50			1 1			
			1							
				52						
(milty clay, orayel, and					∇	24				
(silty clay, gravel, and rock)				54	\triangle					
				56						
(silty clay, gravel, and				58	∇	15				
(silty clay, gravel, and rock)				60	\triangle					
				62						
·										
(silty clay, gravel, and rock)				64	\times	25				
, 50,17										
				66						
				- 68						
(silty clay, gravel, and					∇	30				
rock)				70	\sim					
•										
BOTTOM OF BORING 74-1/2'			}	72						
NOTE: Due to sample dis-				+	∇	41				
turbance and rooky nature of material, unable to			N	74	\triangle	7.1				
verify original ground.										
verify original ground. Unable to sample deeper, rig equipped with only 75 feet of sampling rod.				76		l				
f			1							
NOTE: THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDRY				_						
BETWEEN MATERIAL TYPES! THE TRANS- ITION MAY BE GRADUAL.			<u> </u>							
	EXF	LOR	AT	ORY	B	OR	IN	G	LO	G
WASATCH	CAT	ION OF	US-I	HIGH	JAY 4	40	*			
	Pf	RK CITY							ER	
GEOTECHNICAL		ECT NO.	+-	DATE			BORING	40.		
	11	2-2		larch 19	788		NO.	TR (pg.2	,

DATE DRILLED 3/09/88				[<u>:</u>	ı.	
LOGGED BY LHP SURFACE ELEVATION					or .	Į.	×	411:	(KSF	UNCONFINED COMPRESSIVE STRENGTH (KSF	
DRILL RIG CME 75 BORING DIAMETER 5-1/2"	Æ£	SAMPLER		8 2	DRY DENSI	بمأ	FISSE TSS				
DEPTH TO GROUNDWATER Not Estat	DEPTH (FEET)	E.	BLOWS	WATER CONTENT	γ (PC	SHEAR STRENGTH	OK D				
DESCRIPTION AND CLA		U	BLO	2 2	Z.	, F	支합				
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						is	, in	
LANDFILL - SOIL MATRIX			SC								
CONSISTS PRIMARILY OF				2		73/ 12:-					
CLAYEY SAND					\triangle	12"					
(mostly soil and rock, some unidentified materials)				4							
				_ 4 _							
					$\overline{}$						
(soil and rock; wire and fibers in auger cuttings)				8	\triangle	41					
Tibers in abger coccings)											
				10							
				12		26					
(cloth and decomposed wood)					\triangle	40					
wood)				14						:	
				16							
				18							
(soil and gravel)				20	\boxtimes	37				-	
BOTTOM OF BORING 20'											
(BORING TERMINATED WITHIN									}		
LANDFILL MATERIALS)											
			I]							
			ŀ								
						ĺ		ĺ			
					İ						
]	ļ			ĺ	,		
			ł					ł			
Note: The stratification lines represent the approximate boundry			t	<u> </u>							
BETWEEN MATERIAL TYPES; THE TRANS- ITION MAY BE GRADUAL.			[
	EX	PLOR:				OR			LO	G	
WASATCH	WASATCH RELOCATI								IFD		
GEOTECHNICAL		TECT NO.	J.	DATE DATE DATE							
Carried						.988 NO. 11					



Approximate Scale (ft.)
0 100 200

Base: A right-of-way plan dated 4/25/86, titled "Relocation of U.S. Hwy.-40, Park City Jct. to South Mayflower, Right of Way Plan" prepared by Utah Department of Transportation.

WASATCH GEOTECHNICAL

Consulting Soil, Foundation & Geological Engineers

	SITE PLAN										
	RELO	CATION	OF	US:	-HIGHW	AY 40					
ARK	CITY	JUNCTIO	NC	TO	SOUTH	MAYFLOWER					

Project No. Date

112-1 March 1988 Figure 1